DOCUMENT RESUME

ED 317 285 PS 018 676

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TITLE Developmental Changes in Young Children's Ability to Produce Cohesive and Coherent Stories.
PUB DATE Mar 90
NOTE 16p.; Paper presented at the Conference on Human Development (Richmond, VA, March 29-31, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Comparative Analysis; Concept Formation; Early Childhood Education; *Elementary School Students; Grade 1; *Individual Differences; *Language Patterns; *Narration; Performance Factors; *Preschool Children; Story Telling; Visual Stimuli
IDENTIFIERS *Text Coherence; *Text Cohesion

ABSTRACT

Preschool and first-grade children's story production was studied. Participants were 96 children who were asked to relate stories about two familiar events: baking cookies and taking a trip to the beach. Story events were depicted in line drawings in a coloring book. Half the sample was assigned to a preview condition in which children narrated stories after viewing the pictures. The other half, assigned to a standard condition, told stories without previewing. Half the children in each condition were given pictures that included a problem-resolution sequence, while the other half viewed pictures of a typical, but uneventful, sequence. Findings revealed three predominant techniques that children used to create cohesion: interclausal connectives, intraclausal devices, and pronominal reference strategies. Effects on coherence were more complicated, and concerned developmental differences in story structure and content. Previewing of the picture sequence affected coherence. First graders, in comparison with preschoolers, seemed to have a more elaborate concept of a story. This concept enabled flexible adaptation to different structural contexts. To some degree, the amount of cognitive effort required determined children's success in using linguistic reference devices and incorporating the episodic story structure into their narratives. Preschoolers' storytelling abilities were tenuous, although not as poorly developed as once believed. (RH)

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Developmental Changes in Young Children's Ability to Produce Cohesive and Coherent Stories

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RUNNING HEAD: DEVELOPMENTAL CHANGES IN STORIES

Paper presented in J.A. Hudson (Chair), Evaluating Structure in Different Narrative Genres, Conference on Human Development, March 29-31, 1990.

PS 018676

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Developmental Changes in Young Children's Ability

to Produce Cohesive and Coherent Stories

Children must contend with two main tasks in producing narratives -- cohesion and coherence. Cohesion refers to the linguistic reference devices which tie a span of sentences together to form a whole. Coherence refers to the episodic structure of the narrative content. Researchers of story grammar indicate that various types of information contained in stories are represented in one's story schema as a hierarchical network of categories--each category has specific referential and evaluative functions in the story schema.

Research on children's story production has found that preschoolers are less capable of producing narratives which are both cohesive and coherent. Preschoolers' narratives often contain ambiguous references and have fewer explicitly connected clauses. Elementary school children, in contrast, use more advanced temporal and causal connectives and also begin to use other, more mature techniques for creating cohesion, such as intraclausal devices and pronominal reference. Preschoolers also have more difficulty applying story schema in producing stories. That is, they omit many of the basic episodic categories, particularly the problem-resolution structure which is the hallmark of a good story. In most cases, the narratives produced more closely resemble a description of an event sequence. That is, children often just list a set of actions-without providing a problem and resolution. However, there is evidence that young children do have knowledge about story structure since they distinguish stories from descriptions with formal markers, like past tense and fairytale beginnings and endings, and while they may not use story schema for production, they can use it for comprehending stories. Thus, children may still be in the process of gaining control of story schema.

In this study, we wanted to maximize children's performance and minimize the amount of cognitive effort needed for a story production task. So rather than just asking children to tell

us stories about certain topics, we used picture-books which portrayed those events. In addition to examining age differences, we were interested in two factors which we believed affected storytelling . The first factor was the opportunity to preview the picture sequence--usually, researchers have children narrate a story as they view each picture and the resulting stories are not necessarily cohesive or coherent. We thought that children's performance would be improved by having prior knowledge of the event sequence so some children were allowed to view the pictures before telling their stories. The second factor was the inclusion of a problem-resolution structure --we wanted to investigate the effect of the event structure on story production. We reasoned that providing children with a picture sequence that contained the type of structure which is characteristic of a story should help reduce the amount of cognitive effort needed for achieving coherence, thereby allowing children more cognitive effort for creating cohesion.

We asked 96 preschool and first-grade children to tell us stories about 2 familiar events, baking cookies and a trip to the beach. The events were depicted as line-drawings bound into a coloring book. Half the children in each grade were in the preview condition and narrated stories after viewing the pictures, and the other half were in the standard condition and told stories without previewing. Half the children in each condition were given pictures that included a problem-resolution sequence (problem version) while the other half saw pictures that included a typical, but uneventful sequence (event-based version). Figure 1 shows a sample of each version.

Insert Figure 1 about here

Results

Cohesion

The three major techniques for creating cohesion used by children were interclausal connectives, intraclausal devices, and pronominal reference strategies. First consider Interclausal Connectives. Figure 2 shows the proportion of connectives used in each version. Version effects were found for the two simplest connectives. The Additive connective 'and' was used more in problem versions while the Continuative connective 'now' was used more in the event-based versions. No other differences were found. Figure 3 shows the proportion of connectives used by preschoolers and first graders. There were Age differences in the use of Temporal Connectives such that first graders used more temporal connectives than preschoolers. No differences were found in the use of Adversative/Causal connectives. Age differences were also found in the use of Intraclausal devices, such as Prepositional Phrases and Relational Clauses--which are more advanced types of cohesive devices. First graders' stories contained more prepositional phrases and relational clauses than those by preschoolers.

Insert Figures 2 & 3 about here

The third technique for creating cohesion is the use of a Pronoun Strategy which is a reference device used throughout the narrative to refer back to previously introduced characters. Table 1 shows the types of pronoun strategies used. The thematic subject pronoun strategy is considered more advanced than the 'they' and noun phrase strategies in that pronouns are used in a consistent fashion through out the narrative. Age differences were found in children's use of the Confused Pronoun Strategy: Preschoolers stories were more often identified as using a 'confused' strategy. As seen in Figure 4, Version effects were indicated for both the 'They' and 'Thematic Subject' Pronoun Strategies--They used more with event-based and TS with the

problem versions. No differences were found for the other pronoun strategies.

Insert Table 1 & Figure 4 about here

Coherence

The effects on Coherence, that is the categories in story structure which are shown in Table 2 were more complicated. Developmental differences were found such that the first graders' stories tended to include more story beginnings and endings, and more information about the story character's internal states and reactions than stories by preschoolers.

Insert Table 2 about here

The effect of the event structure on the inclusion of episodic categories was two-fold. First, children were able to improve story coherence when the problem-resolution sequence was presented. That is, the event-based picture sequence encouraged children to focus on actions whereas children focused on developing the problem-resolution structure with the problem version sequence. Thus, the problem version provided the type of episodic support that preschoolers needed to produce better stories.

Second, there were developmental differences in the effect of structure on the inclusion of categories. For example, when shown the problem picture sequence, stories by first graders included more obstacles and repairs whereas those by preschoolers included more settings and descriptions. In constrast, first graders provided more settings and descriptions when viewing the event-based versions.

Previewing the picture sequence also effected coherence. When children were allowed to preview, their stories included more dialogue. Moreover, children who previewed included

more fairytale beginnings and endings in stories with the problem version, but more actions and dialogue in stories with the event-based version. The inclusion of certain categories (i.e., dialogue) which are not essential to the core of the episodic structure of a story may function by providing a high point a basically plotless sequence as in the event-based version. Thus, previewing served the intended function of alerting children to the type of structure provided in the pictures and gave them the opportunity to either elaborate the information depicted or improve on the event sequence.

Conclusions:

Three conclusions can be made from these findings. First, children were using story schema as a guide for producing stories. First graders, however, seem to have a more elaborated concept of a story which allows them the flexibility to adapt to the different structural contexts available when narrating. That is, first graders were able to take advantage of the event sequence and enhance their narratives by developing the structure provided as in the problem version picture sequence. And when the picture sequences provided were bland, they could add the type of information necessary to make their narratives more 'story like' or atleast more interesting. Preschool children, on the other hand, were more dependent upon the structure provided in the pictures and thus, were able to elaborate when the context available was already structured like a story.

Second, it may be that children's 'success' in using linguistic reference devices and incorporating the episodic story structure into their narratives was determined, in part, by the amount of cognitive effort required. The opportunity to preview and the provision of a problem-resolution sequence differentially effected cohesion and coherence. In particular, previewing alerted children to the type of structure available which allowed them to improve coherence but did not affect cohesion. Providing a problem-resolution structure was effective in alleviating some of the cognitive effort needed for storytelling, however, there was a

trade-off. In the problem versions, children were able to produce more coherent stories and to maintain pronoun reference, but the effort expended was enough to force children to simply chain their clauses together. In contrast, the event-based sequence detrimentally effected both cohesion and coherence. Children were able to use continuative connectives, but were less able to coordinate pronoun usage and could not elaborate on the depicted event sequence.

Lastly, preschoolers' storytelling abilities, although not as poorly developed as once believed, are nevertheless tenous. That is, they seem to require extensive support to be able to coordinate story knowledge and use their narrating skills for producing cohesive and coherent stories. On the other hand, these same supports serve to further enhance the first grader's narratives which already contain various types of linguistic reference devices and demonstrate their knowledge of episodic story structure. In summary, the opportunity to preview and the inclusion of a problem- resolution structure were effective in facilitating even young children's ability to coordinate their knowledge of events, linguistic devices, and story structure in producing cohesive and coherent stories.

Table 1

Type of Pronoun Strategy

Confused: Child's use of pronouns is locally determined

'They': Child only uses the pronoun 'they'

Noun Phrase: Child avoids use of pronouns.

'Thematic Subject': Child identifies particular character with pronoun.

Anaphoric: Child uses pronouns with more than one character and reference is clear.

Table 2

Types of Episodic Structural Categories

Fairytale Beginnings and Endings--Once upon a time, happily ever after

Settings and Descriptions--background and orientation information

Actions

Internal States and Reactions--characters' thoughts and feelings

Obstacles and Repairs--problems and their resolutions

Dialogue

Figure Captions:

Figure 1. Examples of Picture Sequences: Problem version Baking Sequence and Event-based version Trip Sequence.

Figure 2. Proportion of each type of connectives used in each version.

Figure 3. Proportion of each type of connectives used by preschoolers and first-graders.

Figure 4. Proportion of each type of pronoun strategy used in each version.

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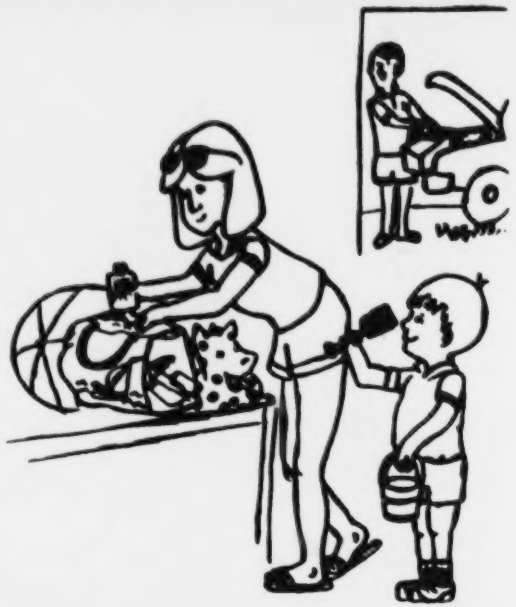

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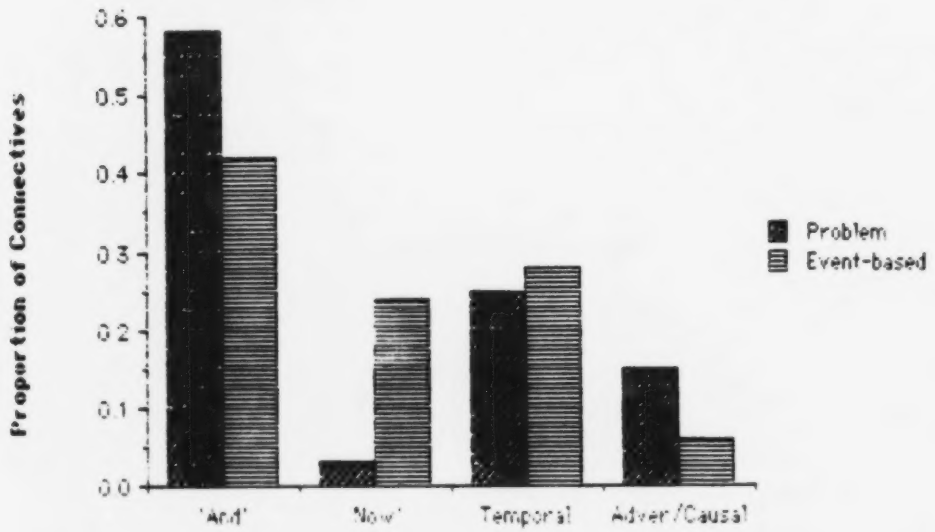
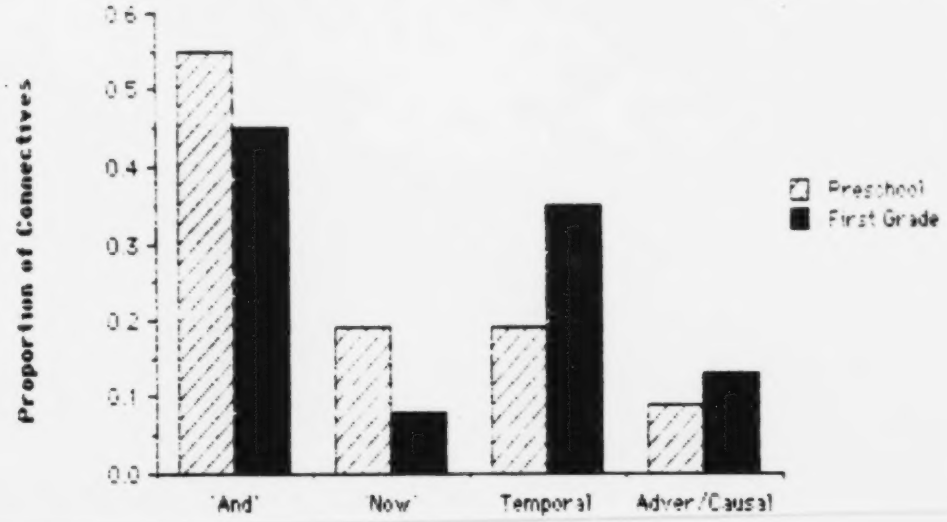
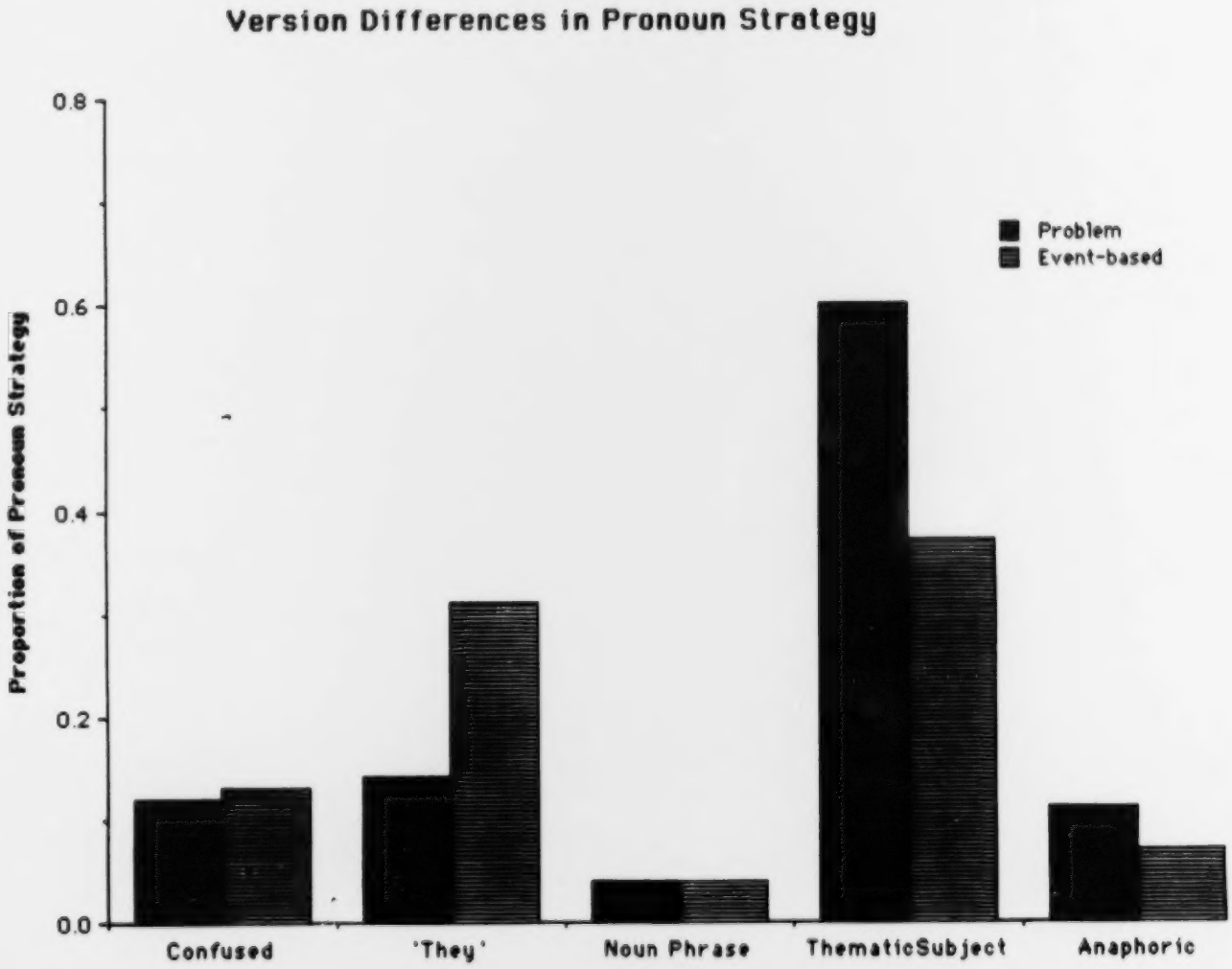
Version Differences In Use of Connectives



Age Differences In Use of Connectives




Version Differences in Pronoun Strategy
Proportion of Pronoun Strategy
0.0
0.2
0.4
0.6
0.8
Problem
Event-based
Confused
'They'
Noun Phrase
ThematicSubject
Anaphoric